

APRIL/MAY 2025

**23UFBT14 — BASICS OF
BIOTECHNOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the contribution of Gregor Mendel?
2. What is fermentation? Give an example of a fermented product.
3. What is the shotgun cloning method?
4. What is a plasmid? Give an example of an artificial plasmid.
5. Write any two applications of gold biotechnology.
6. What is gold biotechnology?
7. List out the names of two genetically modified crops.
8. What are biofuels, and list out their types.



9. What is the role of biotechnology in herbal medicine production?
10. What are the applications of enzymes in the food industry?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Illustrate the advantages and disadvantages of biotechnology.

Or

- (b) Briefly describe the history of biotechnology.

12. (a) Give an account of the isolation of DNA from bacterial strains.

Or

- (b) Write short notes on vectors that are used in the rDNA technology.

13. (a) Give an account of blue biotechnology.

Or

- (b) How can red biotechnology be used to solve problems? Explain in a detailed manner.

14. (a) Describe the role of biotechnology in the production of bakery products.

Or

- (b) Give a brief outline about antibiotics.

15. (a) Explain the products produced through biotechnology in our daily life.

Or

- (b) Brief account of GM food and explain its pros and cons.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write an essay on the scope of biotechnology.

17. Give a detailed account of the restriction endonucleases and their applications.

18. What is meant by grey biotechnology? Explain how grey biotechnology helps maintain environmental health.

19. Explain the different types of vaccines and their applications.

20. Write an essay on medical biotechnology and its applications.

